



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/814,798 | 03/31/2004 | Scott A. Beltz | 1033-AM1001 | 4972 |
| 34456 | 7590 | 09/28/2005 | EXAMINER | |
| TOLER & LARSON & ABEL L.L.P. 5000 PLAZA ON THE LAKE STE 265 AUSTIN, TX 78746 | | | TRAN, QUOC DUC | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2643 | |
| DATE MAILED: 09/28/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,798

Applicant(s)

BELTZ ET AL.

Examiner

Quoc D. Tran

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pomp et al (6,097,515) in view of Gottesman et al (4,878,048).

Consider claim 1, Pomp et al teach a system (see Fig. 1) comprising: a test and control system (HDT 130) including a first input coupled to a technician terminal (i.e., OCC 27) and a second output coupled to a switchable protection circuit (SONU 17); and wherein a switchable protection circuit (SONU 17) is remotely located from the telephone central office and coupled to the telephone central office via a communication link (col. 8 lines 35-39), the switchable protection circuit supporting a plurality of active individual communication lines and an unused spare communication line, each of the active individual communication lines configured to support communication of traffic from end user subscribers supported by the active individual communications lines connected to the switchable protection circuit to the telephone central office (col. 8 lines 39-48), the switchable protection circuit responsive to the test and control system and including logic to respond to a specific command sent from the test and control system to via the second output switch a selected one of the plurality of active individual communication lines to the unused spare communication line and to activate the spare

Art Unit: 2643

communication line in response to the specific command to support communications traffic over the spare communication line (col. 11 lines 16-54).

Pomp et al suggested of a first output (Fig. 1 links between the HDT and SWITCH). However, did not explicitly suggested where the first output to send command signal to an automated circuit switchover system (SWITCH) within a telephone central office (CO 11). However, Gottesman et al teach a Pair Gain Test Controller 48 (corresponding to automated test system) coupled to central office switch 30 (i.e., first output) and to remote terminal 34 (i.e., second output) for sending activation command to switch over to spare channel (Fig. 1; col. 4 line 65 – col. 5 line 37).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Gottesman et al into view of Pomp et al in order to rapidly restore services.

Consider claim 2, Pomp et al teach wherein the special command is sent from the test and control system in response to a technician command processed at the technician terminal (col. 11 lines 16-54).

Consider claim 3, Pomp et al teach wherein the technician command is initiated in response to a subscriber reported problem with one of the plurality of individual communication lines (col. 12 lines 33-45).

Consider claim 4, Pomp et al teach wherein the plurality of individual communication lines are DS1 lines (col. 10 lines 45-48).

Consider claim 5, Pomp et al teach wherein the communication link is a multiplexed T1 line (col. 9 lines 59-67).

Consider claim 6, Pomp et al teach wherein the technician terminal has an interface to enable a user to enter a circuit trouble ticket into a circuit trouble ticket reporting system (col. 20 lines 1-17).

Consider claim 7, Pomp et al teach wherein the special command is a specific sequence of program codes (i.e., control signal or instructions) (11 lines 50-54; col. 18 lines 6-13).

Consider claim 8, Gottesman et al teach wherein a command is sent from the test and control system via first output to automatically implement a circuit change at the telephone central office that corresponds to the change to the spare communication line made at the remote switchable protection circuit (col. 4 line 65 – col. 5 line 37).

Consider claim 10, Pomp et al teach a method of responding to a subscriber communication line problem report (col. 12 lines 18-31) the method comprising: receiving a reported problem associated with an individual subscriber communication line; entering a trouble ticket into a trouble ticket tracking database using an operations terminal; initiating a test of the individual communication line using an automated test system, the automated test system responsive to the operations terminal; determining whether the individual subscriber communication line is supported by a remote switch protection device (col. 20 lines 1-17); sending a program code to the remote switch protection device via a first communication path from automated test system to the remote switch protection device to request the remote switch protection device to swap the individual subscriber communication line with a spare communication line (col. 11 lines 16-27).

Pomp et al did not suggest sending a switch-to-spare circuit command to a telephone exchange via a second communication path from the automated test system to the telephone

exchange, the telephone exchange including a telephone circuit communicatively coupled to the individual subscriber communication line and to the remote switch protection device, the telephone exchange automatically switching the telephone circuit from the individual subscriber communication line to the spare communication line. However, Gottesman et al suggested such (col. 4 line 65 – col. 5 line 37).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Gottesman et al into view of Pomp et al in order to reconfigure the line to the spare line and to rapidly restore services.

Consider claim 11, Pomp et al teach the method further comprising communicating the corrected circuit condition to the subscriber that initiated the problem report (col. 19 lines 39-49).

Consider claim 12, Pomp et al teach wherein an automated circuit switchover system embedded within the telephone exchange performs the step of automatically switching the telephone circuit from the individual subscriber communication line to the spare communication line (col. 11 lines 2-31).

Consider claim 13, Pomp et al teach wherein the automated test system comprises a test and control system, the automated test system coupled to the operations terminal and configured to communicate with the automated circuit switchover system within the telephone exchange (col. 11 lines 43-54; col. 14 line 60 – col. 15 line 23).

Consider claim 14, Pomp et al teach wherein the remote switch protection device includes a switchable protection circuit, the remote switch protection device coupled to the telephone exchange via a communication link, wherein the switchable protection circuit supports a plurality of active individual communication lines and an unused spare communication line,

each of the active individual communication lines configured to support communication of traffic from end user subscribers supported by the active individual communications lines connected to the switchable protection circuit and to the telephone exchange (col. 8 lines 35-48).

Consider claim 15, Pomp et al teach wherein the switch protection device includes logic to respond to the program code sent from the automated test system, and where the switch protection device selectively connects one of the plurality of active individual communication lines to the unused spare communication line and activates the spare communication line to support communications traffic over the spare communication line (col. 11 lines 16-54).

Consider claim 16, Pomp et al teach a method of responding to a subscriber communication line problem report (col. 12 lines 18-31) the method comprising: initiating a test of subscriber communication line using an automated test system, the automated test system responsive to an operations terminal trouble ticket report relating to a reported problem associated with the individual subscriber communication line (col. 20 lines 1-17); communicating a program code over a first communication path from the automated test system to a switch protection device, the switch protection device supporting the subscriber communication line, the program code to request the switch protection device to swap the subscriber communication line with a spare communication line (col. 11 lines 16-27).

Pomp et al did not suggest communicating a switch-to-spare circuit command to a telephone exchange, the telephone exchange including a telephone circuit communicatively coupled to the individual subscriber communication line and to the switch protection device via a DS1 communications link, the telephone exchange automatically switching the telephone circuit

Art Unit: 2643

from the individual subscriber communication line to the spare communication line. However, Gottesman et al suggested such (col. 4 line 65 – col. 5 line 37).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Gottesman et al into view of Pomp et al in order to reconfigure the line to the spare line and to rapidly restore services.

Consider claim 17, Pomp et al teach the method further reporting a corrected circuit condition for the subscriber communication line (col. 12 lines 12-17).

Consider claim 18, as discussed above, Pomp et al teach wherein communicating the switch-to-spare circuit command occurs after communicating the program code (col. 12 lines 3-17).

3. Claims 9 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Pomp et al (6,097,515) in view of Gottesman et al (4,878,048) and further in view of Christensen et al (4,074,072).

Consider claims 9 and 19, Pomp et al did not specifically suggest wherein the switchable protection circuit supports seven active lines and one hot spare line. However, Christensen et al suggested such (col. 26 lines 24-32). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Christensen et al into view of Pomp and Gottesman et al in order provide network reliability and efficiency.

Response to Arguments

4. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

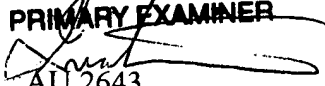
Art Unit: 2643

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Quoc Tran** whose telephone number is **(571) 272-7511**. The examiner can normally be reached on M, T, TH and Friday from 8:00 to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Curtis Kuntz**, can be reached on **(571) 272-7499**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600** whose telephone number is **(571) 272-2600**.

QUOCTRAN
PRIMARY EXAMINER


AU 2643

September 26, 2005